



Shore Protection Project Performance Improvement Initiative (S3P2I) (aka: Shore Protection Assessment (SPA))

Status:

In Progress

IWR Contact:

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Purpose:

Little information has been gathered on the performance of shore protection projects that have been constructed in the United States. This assessment will contribute to improved shore protection guidance and analysis of benefits. The effort will assess shore protection project performance following the 2004 hurricane season in the southeastern U.S. The number of Federal shore protection projects in the affected area, the number of hurricanes, the magnitude of the storms, and the relatively short six-week period in which they occurred provide a unique opportunity to assess Federal shore protection project performance.

Economic and Social Analysis: evaluate how federal shore protection projects performed in the wake of hurricanes Charley, Frances, Ivan, and Jeanne in 2004. Martin County, Florida is a case study assessed by the Economic & Social Analysis work unit. In 1996, the Corps partnered with Martin County and the State of Florida to place a beach nourishment project along 4 miles of shoreline on Hutchinson Island. Hurricanes Frances and Jeanne passed over the project area within 2 weeks of each other in September 2004.

Strategic Communications: To provide an integrated, focused approach to communicating information for all SPA work efforts.

Objective:

To assess the performance of shore protection projects in the southeastern U.S. after the 2004 hurricane season, and to provide information useful in future project formulation and design. Project performance will be assessed in the context of physical response, economic, environmental and social performance metrics.

Economic & Social Analysis: to measure the damages prevented by the shore protection project across the National Economic Development (NED), Regional Economic Development (RED), and Other Social Effects (OSE) accounts. NED Account: Reduced physical damage to homes, businesses, and infrastructure RED Account : Impacts to the regional economy, measured in terms of employment and income OSE Account: non-monetary impacts to the region reflected by indicators of public health & safety, emergency preparedness, community cohesion, and population vulnerability A secondary objective is to collect data to assist the improvement of existing coastal damage functions.

Strategic communications: Inform and interact with a wide range of audiences to tell them about the ongoing SPA program. Present SPA results to the full range of the coastal community. Make connections which can enhance ongoing and foster new collaborations. Develop products which can be used to inform and educate a wide range of stakeholders.

Benefits:

Project formulation and design improvements for coastal storm damage reduction projects; Increased cross-agency partnership; improved hurricane tools and models.

Economic & Social Analysis: The assessment presents an opportunity to perform a post-event evaluation of actual project performance, as measured by economic and social effects. The work will provide insights into the data, tools and procedures governing hurricane storm damage evaluations, while simultaneously affording an opportunity to continue testing the application of the Beach-fx storm damage assessment model. In the process, the team expects to identify recommendations for procedural improvements that will assist project delivery teams with the planning and evaluation of proposed coastal protection projects.

Strategic communications: Proactive and comprehensive outreach. This will ensure that the SPA findings and results will be linked with related work in the public and private sectors, and that lessons learned will strategically improve coastal engineering and future shore protection projects. More efficient communications by providing liaison to all technical work efforts.

Progress:

Economic & Social Analysis: Completion of preliminary analysis of NED benefits, which will inform the RED and OSE studies. Preliminary NED results (\$11M+ damages prevented) were reported to the October 2006 meeting of the Coastal Engineering Research Board.

Strategic communications: Initial communications materials have been completed: fact sheets; presentations with notes; program and focus area articles. Presentations have been made at selected conferences; to the CERB; at MSCs and to senior leaders. Six articles have been published Abstracts for panels have been submitted to CZ 07 and other venues.

Program Fact Sheet 04 Hurricanes Fact Sheet Individual Fact Sheets for each of the 04 Hurricanes Numerous presentations (available to team on FTP site) Articles in Coastal Voice (2); The Military Engineer

Products:

- How Beach Nourishment Works
[Paper by . Apr 1,2007](#) (pdf, 2.7 MB)
- Shore Protection Assessment Fact Sheet
[Fact Sheet by . Feb 16,2006](#) (pdf, 211 KB)

Related Links:

Team:

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Partners:

Florida Department of Environmental Protection
Martin County
NOAA Coastal Services Center
The Nature Conservancy
USGS

